



Palisades Nuclear Plant

Operated by Nuclear Management Company, LLC

May 22, 2003

10 CFR 50.54(f)

U S Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555-0001

PALISADES NUCLEAR PLANT  
DOCKET 50-255  
LICENSE No. DPR-20  
ORDER ESTABLISHING INTERIM INSPECTION REQUIREMENTS FOR REACTOR  
PRESSURE VESSEL HEADS AT PRESSURIZED WATER REACTORS – RESPONSE  
FOR PALISADES 2003 REFUELING OUTAGE

The Nuclear Regulatory Commission (NRC) issued Order EA-03-009, "Issuance of Order Establishing Interim Inspection Requirements for Reactor Pressure Vessel Heads at Pressurized Water Reactors," on February 11, 2003, which modified license number DPR-20 for the Palisades Nuclear Plant. Section IV.E of the Order requires a report be submitted within sixty days after returning the plant to operation from a refueling outage in which a required inspection was completed. Enclosure 1 provides the details of the required inspection results.

SUMMARY OF COMMITMENTS

This letter contains the no new commitments and no revisions to existing commitments.

I declare under penalty of perjury that the foregoing is true and accurate. Executed on May 22, 2003.

Douglas E. Cooper  
Site Vice-President, Palisades

CC Regional Administrator, USNRC, Region III  
Project Manager, USNRC, NRR  
NRC Resident Inspector – Palisades

Attachment

A101

**ATTACHMENT 1**

**NUCLEAR MANAGEMENT COMPANY  
PALISADES NUCLEAR PLANT  
DOCKET 50-255**

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## **1.0 INTRODUCTION**

The Nuclear Regulatory Commission (NRC) issued Order EA-03-009, "Issuance of Order Establishing Interim Inspection Requirements for Reactor Pressure Vessel Heads at Pressurized Water Reactors," on February 11, 2003, which modified license number DPR-20 for the Palisades Nuclear Plant. Section IV.E of the Order requires a report be submitted within sixty days after returning the plant to operation from a refueling outage in which a required inspection was completed.

The Nuclear Management Company, LLC (NMC) 15-day response to Bulletin (BL) 2002-02, "Reactor Pressure Vessel Head and Vessel Head Penetration Nozzle Inspection Programs," dated August 26, 2002, stated that the effective degradation year (EDY) value for Palisades Nuclear Plant would be less than ten at the start of the Spring 2003 refueling outage and not exceed twelve until at least calendar year 2007. In addition, no cracking has been experienced in any penetration nozzle or J-groove weld due to primary water stress corrosion cracking on the Palisades reactor pressure vessel (RPV) head. Therefore, Palisades Nuclear Plant is ranked in the moderate susceptibility category as defined in NRC Order EA-03-009.

Palisades Nuclear Plant was returned to operation on April 20, 2003, after completing a refueling outage. During this refueling outage, a bare metal visual examination of 100% of the RPV head surface (including 360° around each RPV head penetration nozzle) was conducted. This inspection fulfills the requirements imposed by NRC Order EA-03-009, section IV.C (2), for plants ranked in the moderate susceptibility category.

## **2.0 DESCRIPTION OF INSPECTION METHODS**

Insulation was removed from the RPV head to allow for visual examinations. Qualified VT-2 examiners using direct visual techniques performed the examinations. Visual inspection was also performed to identify potential boric acid leaks from pressure retaining components from above the RPV.

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### **3.0 RPV HEAD INSPECTION RESULTS**

Inspection of the RPV head base material indicated generalized carbon steel scaling that was most significant in the area of nozzle penetration #17. The inspection also noted a boric acid stain between nozzle penetrations #1 and #3. Staining and scaling were removed to the point that the base metal material could be seen. Staining was determined to be from previous control rod drive housing leaks and there was no evidence that any of the RPV head staining was from RPV head penetration leakage. There was no evidence of any degradation of the base metal seen or any current potential boric acid leaks from pressure retaining components from above the RPV.

### **4.0 RPV HEAD PENETRATION NOZZLE INSPECTION RESULTS**

There was no accumulation of boric acid in the vicinity of any of the 54 RPV head penetrations and no leakage of boric acid through any of the 54 RPV head penetrations. All visual examinations of the RPV head penetrations had acceptable results.

### **5.0 CONCLUSIONS**

The RPV head and associated penetration nozzles for the Palisades Nuclear Plant are in an acceptable condition that provides reasonable assurance that plant operations do not pose an undue risk to the public health and safety.